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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/845,355	05/01/2001	Tetsuo Nakamura	Q64193	2615

7590 02/28/2002

SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC  
2100 Pennsylvania Avenue, N.W.  
Washington, DC 20037

EXAMINER
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CHEA, THORL

ART UNIT	PAPER NUMBER
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1752

DATE MAILED: 02/28/2002

4

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/845,355

Applicant(s)

NAKAMURA ET AL.

Examiner

Thorl Chea

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Specification***

1. Claims 4, 5, and 7 objected to because of the following informalities: the notation of n, p, m associated to formulae (II), (III), (IV), (V), (VI) are not consistent. See especially the number associated therewith, i.e., subscript vs superscript. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-4, 9-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The protection sought for claiming of "at least two sensitizing dyes represented by the formula (I)" in claims 1, 11 is unclear since there is only one dye of formula represented by formula (I) is shown in the claims, and none of the other dyes presented in the claims.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Miyamoto et al (Miyamoto) and Hioki et al (Hioki).

Miyamoto discloses silver halide emulsion containing dyes within the scope of the claimed invention. Note especially formula (I) in column 2 and the exemplified compounds in columns 5-12 wherein the dyes having a " $-\text{SO}_3^-$ " containing substituent and the other substituents are not the " $-\text{SO}_3^-$ " containing substituent, and these substituents have structure within the scope of the claimed invention. In the abstract, it is disclosed "the silver emulsion is subjected to spectral sensitization with at least one type of a methine compound represented by formula (I). In column 3 lines 10-15, Miyamoto prefers a substituent containing a sulfo group as R2. The most of exemplified compounds in Miyamoto are compounds containing a substituent having " $-\text{SO}_3^-$ " containing substituent and the other substituents containing a dissociable group other than " $-\text{SO}_3^-$ " containing substituent. In the formula (I) in column 2, it is disclosed that " $(\text{X}_1)_k$ " represents anion and k represents a number required to adjust the charge in the molecule to 0.

Hioki in column 5, lines 49-51, discloses that a sulfo group is described as " $-\text{SO}_3^-$ ", but it can be described as " $\text{SO}_3\text{H}$ " when hydrogen ion is presented as a counter ion. The use of counter ions to balance the charge is disclosed in column 2, lines 30-35.

The difference between the claimed invention and that of Miyamoto is the "H" associated with the sulfo group. Miyamoto is silent with respect to the use of hydrogen atom to balance the charge of the dye molecule, but Hioki discloses that "H" can be used to balance the charge of dye molecule containing sulfo group. It would have been

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obvious to the worker of ordinary skill in the art at the time the invention was made to use positively charged hydrogen to adjust the charge in the molecule of the dye taught in Miyamoto, and thereby provide an invention as claimed.

6. Claims 1-6, 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hioki et al (Hioki).

Hioki discloses silver halide material substantially as claimed. See the abstract wherein the material contains at least one dye of formula (I) and formula (II); exemplified compound of formula (I) and exemplified of formula (II) in columns 6-9 wherein one of the dye substituents contains "-SO<sub>3</sub><sup>-</sup>" group and the other contains groups different from "-SO<sub>3</sub><sup>-</sup>" such as "-CO<sub>2</sub>H" or "CONHSO<sub>2</sub>CH<sub>2</sub>". Hioki may not exemplify the use of dyes having one substituent containing -SO<sub>3</sub>H and the other substituents represent a dissociable group other than that of -SO<sub>3</sub>H; but suggest the use of dye having similar structure to that of the present claimed invention as in combination. It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to spectrally sensitize silver halide emulsion taught in Hioki using a combination of dyes taught therein to provide an invention as claimed.

### ***Conclusion***


7. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.


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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thorl Chea whose telephone number is (703)308-3498. The examiner can normally be reached on M-F (9:30 - 6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet C Baxter can be reached on (703)308-2303. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9301 for regular communications and (703)872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

tchea   
February 15, 2002

  
Thorl Chea  
Primary Examiner  
Art Unit 1752